Art Unit: 2134 Page 2

## **Amendments to the Claims:**

This listing of claims replaces all prior versions, and listings, of claims in this application.

## **Listing of Claims:**

- 1. (Canceled)
- 2. (Canceled)
- 3. (Canceled)
- 4. (Canceled)
- 5. (Canceled)
- 6. (Canceled)
- 7. (Canceled)
- 8. (Canceled)
- 9. (Canceled)
- 10. (Canceled)
- 11. (Canceled)
- 12. (Canceled)
- 13. (Canceled)
- 14. (Canceled)
- 15. (Canceled)
- 16. (Canceled)
- 17. (Canceled)
- 18. (Canceled)

Art Unit: 2134 Page 3

19. (Canceled)

- 20. (Canceled)
- 21. (Canceled)
- 22. (Canceled)
- 23. (Original) A detection system for detecting intrusive behavior in a session on a computer, said session comprising a plurality of applications invoked on said computer, and said computer having a computer operating system, said detection system comprising:
- (a) a plurality of neural networks, wherein each neural network is trained to identify a pre-determined behavior pattern for a corresponding one of the plurality of applications;
- (b) a plurality of application profiles, wherein each application profile comprises a plurality of application data for a corresponding one of the plurality of applications, wherein said application data is collected during the session;
- (c) a temporal locality identifier, wherein when one of the plurality of application profiles is sequentially input to a corresponding one of the plurality of neural networks the neural network outputs a behavior indicator for each of the plurality of data strings in the application profile, and wherein if the behavior indicator meets a pre-determined criteria, a counter is incremented, and wherein if the counter has a high rate of increase the temporal locality identifier labels the application behavior intrusive, and wherein if a predetermined percentage of application behaviors are intrusive the session behavior is labeled intrusive.

Art Unit: 2134 Page 4

24. (Original) The detection system of claim 23, wherein the pre-determined behavior pattern comprises a non-intrusive behavior.

- 25. (Previously Presented) The detection system of claim 23, the application data comprises a distance between a sequential mapping of system calls made by a corresponding one of the plurality of applications and a pre-defined string of system calls.
- 26. (Previously Presented) The detection system of claim 23, wherein the application data comprises a distance between a sequential mapping of object requests made by a corresponding one of the plurality of applications and a pre-defined string of object requests.
- 27. (Original) The detection system of claim 23, wherein the plurality of application profiles is created by a data pre-processor application.
- 28. (Original) The detection system of claim 27, wherein the data pre-processor receives input from an auditing system integral to the computer operating system.
- 29. (Original) The detection system of claim 27, wherein the data pre-processor creates the plurality of second application profiles in real-time.

Art Unit: 2134 Page 5

30. (Original) The detection system of claim 27, wherein the plurality of trained neural networks receive input from the plurality of application profiles in real-time.

- 31. (Canceled)
- 32. (Canceled)
- 33. (Original) The detection system of claim 23, wherein the plurality neural network comprises a plurality of backpropagation neural networks.
- 34. (Original) The detection system of claim 33, wherein each neural network in the plurality of backpropagation neural networks comprises an input layer, a hidden layer and an output layer.
- 35. (Original) The detection system of claim 34, wherein a number of nodes in the hidden layer is determined by testing a plurality of cases for each neural network in the plurality of backpropagation neural networks and selecting the case wherein the corresponding neural network has a highest accuracy rate.

Art Unit: 2134 Page 6

36. (Original) The detection system of claim 23, wherein the plurality of neural networks comprises a plurality of recurrent neural networks.

- 37. (Original) A method for detecting intrusive behavior in a session on a computer, said session comprising a plurality of applications invoked on said computer, and said computer having a computer operating system, said method comprising the steps of:
- (a) training a plurality of neural networks, wherein each neural network is trained to identify a pre-determined behavior pattern for a corresponding one of the plurality of applications;
- (b) creating a plurality of application profiles, wherein each application profile comprises a plurality of application data for a corresponding one of the plurality of applications, wherein said application data is collected during the session;
- (c) performing a temporal locality identifying algorithm, wherein when one of the plurality of application profiles is sequentially input to a corresponding one of the plurality of neural networks the neural network outputs a behavior indicator for each of the plurality of data strings in the application profile, and wherein if the behavior indicator meets a pre-determined criteria, a counter is incremented, and wherein if the counter has a high rate of increase the temporal locality identifier labels the application behavior intrusive, and wherein if a predetermined percentage of application behaviors are intrusive the session behavior is labeled intrusive.

Art Unit: 2134 Page 7

38. (Original) The method of claim 37, wherein the pre-determined behavior pattern comprises a non-intrusive behavior.

- 39. (Previously Presented) The method of claim 37, wherein the application data comprises a distance between a sequential mapping of system calls made by a corresponding one of the plurality of applications and a pre-defined string of system calls.
- 40. (Previously Presented) The method of claim 37, wherein the application data comprises a distance between a sequential mapping of object requests made by a corresponding one of the plurality of applications and a pre-defined string of object requests.
- 41. (Original) The method of claim 37, wherein the plurality of application profiles is created by a data pre-processor application.
- 42. (Original) The method of claim 41, wherein the data pre-processor receives input from an auditing system integral to the computer operating system.
- 43. (Original) The method of claim 41, wherein the data pre-processor creates the plurality of second application profiles in real-time.

Art Unit: 2134 Page 8

44. (Original) The method of claim 41, wherein the plurality of trained neural networks receive input from the plurality of application profiles in real-time.

- 45. (Canceled)
- 46. (Canceled)
- 47. (Original) The method of claim 37, wherein the plurality neural network comprises a plurality of backpropagation neural networks.
- 48. (Original) The method of claim 37, wherein each neural network in the plurality of backpropagation neural networks comprises an input layer, a hidden layer and an output layer.
- 49. (Original) The method of claim 48, wherein a number of nodes in the hidden layer is determined by testing a plurality of cases for each neural network in the plurality of backpropogation neural networks and selecting the case wherein the corresponding neural network has a highest accuracy rate.
- 50. (Original) The method of claim 37, wherein the plurality of neural networks comprises a plurality of recurrent neural networks.